

In response, claim 70 has been canceled without prejudice. Accordingly, the Examiner's rejection under 35 U.S.C. § 112, second paragraph is moot.

## II. REJECTION UNDER 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 1-17, 21-25, 32-44, 61-67 and 69-72 under 35 U.S.C. § 103(a) as being unpatentable over Baichwal *et al.* (5,399,359; hereinafter "the '359 patent") in view of Baichwal *et al.* (WO 97/26865; hereinafter "the '865 patent"). In the Examiner's response to Applicant's previously filed arguments, the Examiner asserted that "inclusion of the organic acid taught equivalent to the cross-linking agents by '856 would facilitate the release of the medicament from the dosage form since it facilitates the sustained release of the formulation." With regard to the composition claims, the Examiner asserted that whether the organic acid "is added after the sustained release excipient has been prepared is not found persuasive." Moreover, with regard to the process claims, the Examiner asserted that "whether the organic acid is added to the heteropolysaccharide/homopolysaccharide gum blend or with a medicament does not appear to be critical. Either way results in a mixture of the heteropolysaccharide gum, medicament, and organic acid. The critical cross-linking taught by '359 occurs upon exposure to gastric fluid after administration and after production of the formulation."

It is respectfully submitted that the Examiner is incorrect. Independent composition claims 1, 46 and 61 recite, in pertinent part, "*a pH modifying agent comprising an organic acid... said pH modifying agent facilitating the release of said medicament from said dosage form.*" The word "facilitating", as defined in Webster's Ninth New College Dictionary (1991), means "to make easier." Therefore, the organic acid of the present invention makes easier the release of the active medicament from the dosage form.

The organic acid cross-linking agent of the '865 patent does not "facilitate" the release of the medicament from the dosage form as asserted by the Examiner. The organic acids of the '865 patent are gel strength enhancing agents providing increased gel strength when the homopolysaccharide is exposed to an aqueous environment, thus preventing an initial "burst" of active medicament release from the formulation. One skilled in the art reviewing both the '865 patent and the present invention would understand that an organic acid that facilitates the release of active medicament from a formulation is functioning very differently from an organic acid that prevents an initial burst of active medicament from a formulation.

The '359 patent does not even teach, hint or suggest the use of organic acids. It certainly does not teach or suggest the use of organic acids as pH modifying agents as claimed in the present invention. One skilled in the art combining the teachings of the '359 and '865 patents, would likely obtain a formulation having no initial burst of active medicament from the formulation, but would not achieve the facilitated release of active medicament of the present invention. Accordingly, independent composition claims 1, 46 and 61 are not obvious over the '359 patent in view of the '865 patent. As claims 2-13 and 15-45 depend from claim 1, claims 47-60 depend from claim 46 and claims 62-64 depend from claim 61, these claims are also not obvious over the '359 patent in view of the '865 patent. Therefore, the Examiner's rejection under 35 U.S.C. § 103(a) should be removed.

Independent method claim 65 of the present invention recites, in pertinent part, "*a method of preparing a bioavailable sustained release oral solid dosage form... comprising: a) preparing a sustained release granulate comprising a gelling agent, said gelling agent comprising a heteropolysaccharide gum and a homopolysaccharide gum capable of cross-linking said heteropolysaccharide gum when exposed to an environmental fluid; thereafter b) adding to said sustained release granulate a therapeutically effective amount of a medicament having a solubility of more than about 10 g/l and a pH modifying agent comprising an organic acid that facilitates the release of said medicament from said dosage form to form a mixture; ....*"

As independent method claim 65 also calls for the use of an organic acid that facilitates the release of the active medicament from the dosage form, it also is not obvious over the '359 patent in view of the '865 patent. Further, independent method claim 65 specifically calls for the preparation of a sustained release granulate comprising a gelling agent and thereafter adding medicament and organic acid to the sustained release granulate.

In contrast, the organic acid of the '865 patent is mixed directly with the xanthan gum/locust bean gum to form the gelling agent. The result, as taught by the '865 patent, is an increase in gel strength, which prevents an initial burst of medicament from the formulation. Clearly, it does matter whether the organic acid is mixed together with the heteropolysaccharide and homopolysaccharide gum blend to form the gelling agent or is added along with the active medicament after the gelling agent is formed. Indeed, this difference is critical to how the organic acid functions in the sustained release formulation.

Accordingly, independent method claim 65 is not obvious over the '359 patent in view of the '865 patent. As claims 66-69 and 71-72 depend from claim 65, these claims are also not obvious over the '359 patent in view of the '865 patent. Therefore, the Examiner's rejection under 35 U.S.C. § 103(a) should be removed.

In the Office Action, the Examiner rejected claims 1-72 under 35 U.S.C. § 103(a) as being unpatentable over the '359 patent in combination with the '865 patent and further in combination with Baichwal *et al.* (5,478,574; hereinafter the '574 patent). In the Examiner's response to Applicant's previously filed arguments, the Examiner reiterated his assertions as discussed above in relation to the '359 patent and '865 patent. The Examiner further asserted that the '574 patent "teaches inclusion of a surfactant in xanthan gum/locust bean gum composition provides a bimodal or multi-phase controlled release of a therapeutically active ingredient...such xanthan gum/locust bean gum compositions are effective for delivering active agents such as diltiazem."

Combination of the '574 reference with the '359 and '865 patents does not bring one skilled in the art any closer to the present invention. Indeed, the '574 patent only teaches inclusion of a surfactant for provision of bimodal or multi-phase controlled release. It does not teach or suggest inclusion of an organic acid to provide facilitated release. Therefore, the addition of this reference adds nothing to the teachings of the '359 and '865 patents regarding use of organic acids.

To reiterate, the organic acids in the '865 patent provide an increase in gel strength when the homopolysaccharide is exposed to an aqueous environment, thus preventing an initial "burst" of active medicament release from the formulation. Neither the '574 patent nor the '359 patent teach or suggest the use of an organic acid as a pH modifying agent. Therefore, if one skilled in the art combined the teachings of the '359, the '865 and the '574 patents, they would not obtain a formulation having an organic acid that facilitated the release of active medicament from the formulation as claimed in the present invention. Accordingly, independent claims 1, 46, 61 and 65 are not obvious over the '359 patent in combination with the '865 patent in further view of the '574 patent. As claims 2-13 and 15-45 depend from claim 1; claims 47-60 depend from claim 46; claims 62-64 depend from claim 61 and claims 66-72 depend from claim 65, these dependent claims are also not obvious over the '359 patent in combination with the '865 patent in further view of the '574 patent. Therefore, it is respectfully requested that the Examiner's § 103 rejection be removed.

### **CONCLUSION**

Applicants respectfully submit that in view of the arguments made, the pending claims are in condition for allowance. An early and favorable action on the merits is earnestly solicited.

A check in the amount of \$110.00 is enclosed for the petition for one-month extension of time. If it is determined that any additional fees are due or that any fees have been overpaid, the Commissioner for Patents is hereby authorized to charge said fees or credit any overpayment to Deposit Account No. 50-0552.

Respectfully submitted,

DAVIDSON, DAVIDSON & KAPPEL, LLC

By: 

Leslye B. Davidson  
Reg. No. 38,854

Davidson, Davidson & Kappel, LLC  
485 Seventh Avenue, 14th Floor  
New York, New York 10018  
(212) 736-1940